Memo

Hand Finishing

NCR: Y	'es	/ No				WORK ORDER NON-	COI	VFORM	MANCE / UPI	DATE	QA Closed:	Date:	
Work Orde	r.					DISPOSITION	AGAINST DEPARTMENT/PROCESS						
Part No						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Pro Rec/Stor	Engineering Quality Other	
Root					Descri	ption of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	•	or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved						•			P				
							FAUI	LT CATE	GORY	•		,	÷
Landi	$\overline{}$	1				General	_	· 7 ·		_	1	<u></u>	1
		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples ir	Crimped at n Strip in n Bend	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Mainte Mislabe Misread Offset	ion Incomplete ions Incomplete/ enance eled	Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Turning Sequence Finish					Out of Sequence							

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord September-23-1				*107		Page 2				
Item ID: D4003-049 Revision ID: Item Name: Tank Vent Line Assembly Start Date: 9/23/13 Start Qty: 1.00 Required Date: 9/23/13 Req'd Qty: 1.00 Reference:			*1* *1*	Accept	*N900 Cust Item I Customer:	∩4∩1∩(^{ID:}	etup Stai	1/1/2		
Approvals:		in:	Date:	Tooling: SPC (Y/N):		ate:	R	tun Sta		R1* R2*
Sequence ID/ Work Center I 140 *140* QC Quality Control	i D	Operation Description QC7-Inspect Chemical C	Conversion Coat	Set Up/ Run Hours 0.00	Tool ID	Tool # Plan Code DAS 30 9-89	Accept Qty	Reject Qty	Reject Number	Insp. Stamp 30
*150 *150* Small Fab Small Fab		Memo Install nut a	s per dwg	0.00						FF 13-10-30
160 *160* QC Quality Control		QC5- Inspect part compl	eteness to step on W/O	0.00 DAS 16 0.00 9-89	13/10/30					- <u> </u>

											DQA:	Date:		
NCR: Y	⁄es	/ No				WORK ORDER NON-O	100	NFORM	/ANCE / UP	DATE				
											QA Closed:	Date:		
Work Orde						DISPOSITION				AGAINST DE	EPARTMENT/PROCESS			
WOIK OIU	=1					Rework		Skid-tube	Crosstube	1	Water Jet	Engineering		
Part i	۷ł۵					Scrap	1 1	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
1 41111	•••					Use-as-is	Thermoforming Finishing Rec/Store/Packaging						Other	
NCR I	No.					Work Order Update	Large Fab Composite Supplier						1	
	•					,	ا ا		·		_			
Root					Descri	otion of work order update	Ţī	Initial	Ac	tion	Sign &	·		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data	Ш													
Equip/Tooling	Ш						1					.		
Operator														
Material	Щ		!											
Setup	Щ													
Other	Н						1				1			
Process	\vdash												,	
Supplier	Н						İ							
Training	Н													
Unapproved	Ш		<u> </u>		<u> </u>			LT CATE	CORV		<u> </u>			
Landi	ng G	lear				General	AUI	LICAIL	GORT					
Cana		Bending				Bend	Г	Grain			Ovalized		Pressure/Forced	
	-	Centre N	ot Concei	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure	
	-	Cracks				Broken/Damaged		-	on Incomplete		Part Incorre	-	Weld	
	П	Crushed/	Crimped			Burrs						Wrong Stock Pulled		
j	Г	Cuffs	•		<u> </u>	Contamination		Mainte	· ·		Part Moved			
		Heat Trea	ət		ļ —	Countersink		Mislabe	eled		Positioned V	Vrong		
		Inspectio	n Strip in	Tube		Cut Too Short		Misread			Power Loss/	Surge	Other	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord September-23-				*107	7126*							Page
Item ID: Revision ID:	D4003-049)	4	Accept	* N 900	040	100)*	Setup :	Start	*N:	S1*
Item Name:	Tank Vent I	ine Assembly								Stop	*N!	S2*
Start Date: Required Date Reference:	9/23/13 e: 9/23/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:						
Approvals:	Process P	'lan:	Date:	Tooling:	D:	ate:	_		Run	Start	*N	R1*
	QC:		Date:	SPC (Y/N):	D:	ate:				Stop	*N	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Rejec		Reject Number	Insp. Stamp
170		Identify as per dwg & St	ock Location: 57243	0.00					DAS	}		
170 Packaging		Memo		0.00				LX	28 	/3	3-10-	-30_

180

Packaging

QC21- Final Inspection - Work Order Release

0.00

180

Quality Control

Memo

0.00

A / 13-10-3/ MF 13-10-31

Page 3

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
											QA Closed:	Date:	
Work Orde	er:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS		
Part No						Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			Small Fab Finishing	Pro Rec/Sto	Engineering Quality Other		
Root					Descri	ption of work order update		Initial	Acti	ion	Sign &	i	
Cause		Date	Step	Qty	(or Non-conformance	Cr	nief Eng	Descri	iption	Date	Verification	QC Inspector
Doc/Data												, ,	
Equip/Tooling													
Operator													
Material			l I	\			1						
Setup												}	
Other		•											
Process													
Supplier			Ì									}	
Training									٠			l E	
Unapproved													
				•			AUI	LT CATE	GORY				
Landi	ng G	ear				General						,	
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	Г	Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/U	Inclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte			Part Moved	· ·	-
		Heat Trea	it			Countersink		Mislabe	led		Positioned V	Vrong	
,		Inspectio	n Strip in	Tube		Cut Too Short		Misread	l		Power Loss/		Other
	Г	Ripples in	Bend			Drill Holes		Offset		_	·		
	Г	Torque W	/aves in l	Extrusio	n	Drawing		Out of C	Calibration			· · · · · ·	

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

September-23-13 11:09:20 AM

Work Order ID:

107126

Parent Item:

D4003-049

Parent Item Name:

Tank Vent Line Assembly

Start Date: 9/23/13

Required Date: 9/23/13

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP rev A 10.01.05 new Issue Prelim EC verified by: DD

ST312

123900

m126275

IPP Rev B 10.05.13 ecn 10-562

EC verified by:DD IPP REV:C 13.04.17 NOW MADE IN HOUSE DD VERF:JLM Qty per Kit Total Qty on Component Item ID/ Unit of Qty Date Status Replacement Mfg/ Bin **Primary** Last Route Measure Hand Item Name Location Qty Issued Issued Item ID Purch Item Location Seq ID No Each 25.0000 AN818-8D 1 Purchased 13-10-25 Loc Qty Loc Code Location 25 ST348 125445 10 15 m126474 1.5 No 108.0300 FF 13-10-25 M6061T6T0.500W.035 Purchased 6061-T6 RD Tube .500 x.035W Location Loc Qty Loc Code MAT014 108.03 1.5 121848 81.68 4692 26.35 FF 13-10-25 Each 45.0000 MS20819-8D No Purchased Sleeve Loc Qty Loc Code Location

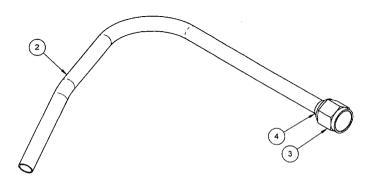
45

15 30

				DQA:	_ Date:	, 1	· · ·	
NCR.	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE					

											QA Closea:	Dati	e:
Work Orde	r:					DISPOSITION	DISPOSITION AGAINST DEPARTMENT/PROCESS						
Part No					Rework Scrap Use-as-is Work Order Update		1	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Engineering Prod. Eng. Coor. Quality Rec/Store/Packaging Other Supplier			
Root	T				Descri	ption of work order update	Ti	nitial	Ad	ction	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data										-			
Equip/Tooling	\neg												
Operator			1										
Material			-										
Setup	_		`										
Other	_										}		j
Process	_									.•			
Supplier					:				`	·			
Training	_											1	
Unapproved	\perp		<u> </u>	<u> </u>					<u> </u>		1		
							AUL	T CATE	GORY				
Landin					_	General		1			7	г	¬。 。
<u> </u>	-	Bending	_			Bend	\vdash	Grain		<u> </u>	Ovalized		Pressure/Forced
] .	-	Centre No	ot Conce	ntric to	o/s	BOM/Route	\vdash	Hardwa		<u> </u>	Over/Under	-	Temperature/Cure
-	-	Cracks	·		<u> </u>	Broken/Damaged	\vdash	- i `	ion Incomplete	///	Part Incorre	⊢	Weld Wrong Stock Pulled
	-	Crushed/	Crimped			Burrs	-	4	tions Incomplete, enance	Unclear	Part Lost/M Part Moved	issing [wrong Stock Pulled
	_	Cuffs Heat Trea	.4		-	Contamination Countersink	\vdash	Mislabe		-	Positioned V	Mrong	
}	-			Tubo	\vdash	Cut Too Short	\vdash	Misrea		_	Power Loss/		Other
	-	Inspectio Rinnles ir		iube	-	Drill Holes	-	Offset	u	L	7. 2. coss/	Juige	
					Drawing	\vdash	4	Calibration					
					Finish	\vdash	-	Sequence		-			
		Wave/Tw			—	Folio	Outside Dimensions						

				3
ITEM NO.	QTY. -049	PART NUMBER	DESCRIPTION	JOHN CAMERON AVIATION PART NUMBER
1	х	D4003-049	TANK VENT LINE ASSEMBLY	JCA-M47-2-17
2	1	D4003-9	VENT LINE	
3	1	AN818-8D	NUT	
4	1	MS20819-8D	SLEEVE	



D4003-049 TANK VENT LINE ASSEMBLY

SEMBLY GARA

DESIGN	A	DART AEROSPACE LTD						
DRAWN	1	HAWKESBURY, O	NTARIO, CANADA					
CHECKED	B	DRAWING NO.	REV. A					
MFG. APPR.	Z	D4003	SHEET 2 OF 9					
APPROVED	140	TITLE	SCALE					
DE APPR.	1	LINE	NTS					
DATE 10.0	2.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PROVICE AND CONTRESHING UNDER SHAPE ON THE EMPIRES CONTROL THAT IT IS NOT TO BE USED FOR ANY PROPOSE OF COMPANIES AND TO ANY OTHER PERSON WITHOUT						

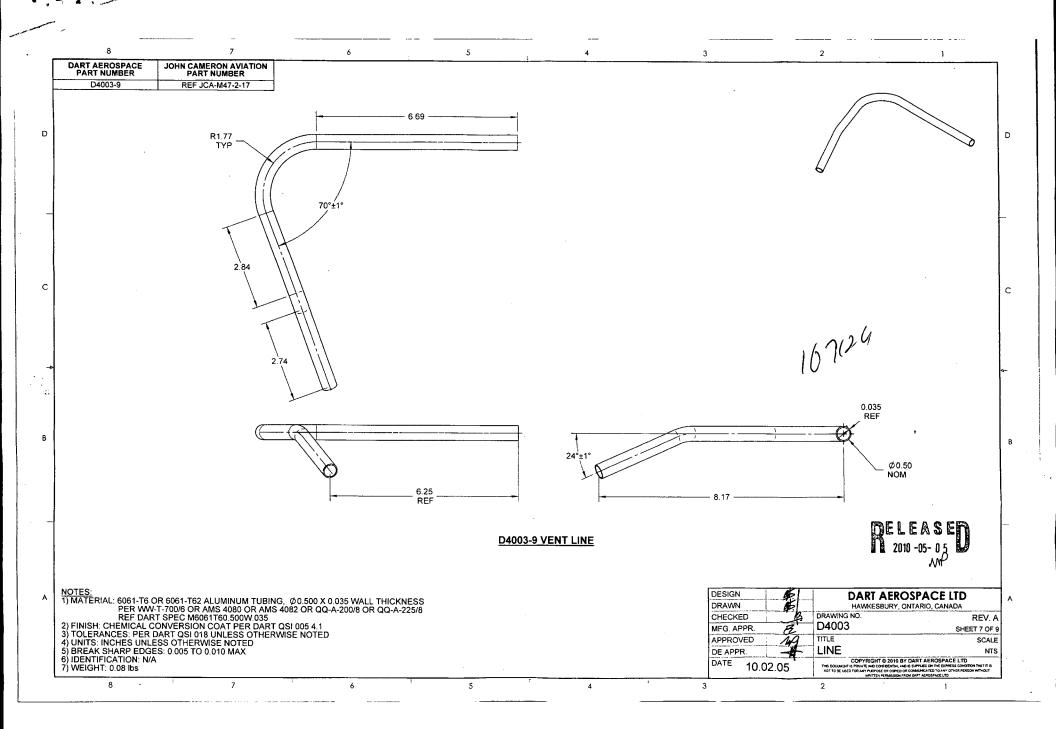
D

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4003-049" AND B/N USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.11 lbs

3

2

D



DART AEROSPACE LTD



Description: Tank Vent Line	ASS.	Work Order: 107126
Inspection Drawing: D 4003	Rev: A	Part Number: D 4003-049

INSPECTION SHEET

						JIILL		
Drawing Dimension				Accept	Reject	Method (of Inspection	Comments
6.69 \$130	#1	30	6.69	V		Tape		FF
R 1./77							ed beride	FF
2.84			2.84	<u> </u>		Tape	07	Y-t
2.74			2.74			Tape	02	FÉ
700	ナー	,	700	V		leve	1 AB918-04	FF
6.25			Rel	1		Tape		FF
8.12			8.117			(0)	2 0 3	FF
240	<u>-</u> +1	0	8.17 240,	5		Angle	level oy	FF
0.035			Rel	V.		,		FF
\$ 0.50			Nam	\				FF
7								
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Measured by:	Checked By:	QC inspector:	Engineering Approval (if necessary):
I FF			
Date	Date	Date	Date
13-10-25			